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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/481,853	01/14/2000	Gary L. Swoboda	TI-28936	6203

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EXAMINER

DAY, HERNG DER

ART UNIT	PAPER NUMBER
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2128

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/481,853

Applicant(s)

SWOBODA, GARY L.

Examiner

Herng-der Day

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This communication is in response to Applicant's Amendment (paper # 4) to Office Action dated June 18, 2003 (paper # 3), mailed September 18, 2003, and received by PTO September 22, 2003.

1-1. Claim 1 has been amended; claims 4-7 have been added; claims 1-7 are pending.

1-2. Claims 1-7 have been examined and claims 1-7 have been rejected.

#### ***Drawings***

2. The proposed drawing corrections to FIG. 3 and FIG. 4 received by PTO on September 22, 2003, have been approved. All three formal drawings are acceptable. The objection to the drawings has been withdrawn.

#### ***Specification***

3. The objections to the specification in paper # 3 have been withdrawn. However, Applicant is required to make the corresponding corrections in the specification related to the changed drawings. For example, Applicant is required to make the corrections in page 11 corresponding to the changes made in FIG. 4.

4. The amendment filed September 18, 2003, is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The amended material, which is not supported by the original disclosure, is as follows:

Art Unit: 2123

(1) Amended sentence at page 18, lines 13-14, as described in page 10 of paper # 4.

(2) Amended steps of “incrementing” and “decrementing” in claim 1, as described in page 14 of paper # 4.

(3) Added new claims 4 and 5, as described in page 15 of paper # 4.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention.

6-1. Applicant’s amendment to the specification to have “AFEN” deleted in order to overcome the rejections under 35 U.S.C. 112, first paragraph (section 7, paper # 3), sets a different condition for the address comparison unit 310 to generate a debug suspend request. The new condition does not appear to have support in the original disclosure.

Applicant argues, “the application teaches how address comparison unit 310, data comparison unit 320 or external comparison unit 330 can trigger debug events without the reference to AFEN” (page 19, paragraph 2, paper # 4). The Examiner respectfully disagrees with the Applicant’s argument. As described in lines 12-14, page 18 of the original specification,

Art Unit: 2123

“The address comparison unit 310 generates a debug suspend request when the ACNTL register ASTOP and AFEN bits are TRUE”, which confirms “the reference to AFEN”.

If AFEN has been defined in the co-pending applications or patents, which has been incorporated by reference in this instant application, Applicant should explicitly amend the Specification to include the related information such that one skilled in the art knows how to generate a debug suspend request without undue experimentation. Such an amendment should include remarks pointing to the text in the co-pending application or patent containing the support for the amendment.

**6-2.** Applicant’s amendment to the steps of “incrementing” and “decrementing” in claim 1 does not appear to have support in the original disclosure.

In page 18 of paper # 4, Applicant indicates specific pages and lines in the original specification to support the amended limitations. However, no support can be found for the amendment to the steps of “incrementing” and “decrementing” in claim 1 with respect to “of the at least one type” and “received while suspending normal program execution”. For example, “page 32, lines 21 to 24” does not exist, “page 15, lines 1 and 2” refers to “the digital frame counter” instead of “debug frame counter”.

**6-3.** Applicant’s amendment to add new claims 4 and 5 does not appear to have support in the original disclosure.

As described at page 17 of paper # 4, Applicant states, “Claims 4 and 5 recite subject matter taught in the application at page 29, lines 25 to 32”. However, at page 29, lines 25 to 32 of the original specification, only “emulation peripheral” has been disclosed. No support can be found for the newly added claims 4 and 5 with respect to “debug event detector”.

Art Unit: 2123

7. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

7-1. For example, as described in lines 12-14 of page 18, “The address comparison unit 310 generates a debug suspend request when the ACNTL register ASTOP and AFEN bits are TRUE”. However, the specification fails to define AFEN bit. Accordingly, it is unclear for one skilled in the art how to generate a debug suspend request without undue experiment.

Applicant argues, “the application teaches how address comparison unit 310, data comparison unit 320 or external comparison unit 330 can trigger debug events without the reference to AFEN” (page 19, paragraph 2, paper # 4). The Examiner respectfully disagrees with the Applicant’s argument. As described in lines 12-14, page 18 of the original specification, “The address comparison unit 310 generates a debug suspend request when the ACNTL register ASTOP and AFEN bits are TRUE”, which confirms “the reference to AFEN”.

7-2. Claims 1-7 contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention because some essential matters have not been properly disclosed.

Applicant argues, “this application is proper under 35 U.S.C. 112 even without the incorporation of the listed co-pending applications” (pages 17-19, paper # 4). To overcome the rejections under 35 U.S.C. 112, first paragraph (section 7, paper # 3), Applicant indicates specific pages and lines in the original specification to support all the limitations of the amended

Art Unit: 2123

claims 1-3 at page 18 of paper # 4. The Examiner respectfully disagrees with the Applicant's argument for at least the following reasons:

(1) Some of the referred pages and lines do not exist. For example, "page 32, line 25 to page 33, line 3" cannot be found.

(2) Most claimed limitations only exist in ABSTRACT (page 32) and in SUMMARY OF THE INVENTION (page 5) without any detailed description. Therefore, without undue experiment, it is unclear and difficult for one skilled in the art to make and/or use the invention. For example, claim 2 recites "a plurality of debug event detectors", however, there is no detailed description of "debug event detector". In other words, for example, it is unclear for one skilled in the art (a) whether the "debug event detector" is a hardware device or a software checking procedure, (b) why and how only one debug event detector detects a first or second debug event instead of all debug detectors detect the same debug event.

(3) As described in lines 23-25, page 12 of the original specification, "In general, debug events are allowed at an instruction boundary, when reset is inactive and *no interrupts are active*". However, claim 1 recites the limitation "detecting at least one second debug event *during an interrupt service routine executing*". Therefore, without undue experiment, it is unclear for one skilled in the art how to detect an un-allowed debug event during an interrupt service routine executing.

If any essential matter has been disclosed in the co-pending applications or patents, which has been incorporated by reference in this instant application, Applicant should explicitly amend the Specification to include the related information such that one skilled in the art knows how to make and/or use the invention without undue experimentation. Such an amendment should

Art Unit: 2123

include remarks pointing to the text in the co-pending application or patent containing the support for the amendment.

***Allowable Subject Matter***

8. Claims 1-7 are not taught by the prior art, and would be allowable if the above rejection under 35 U.S.C. 112, first paragraph, is overcome.

***Applicant's Arguments***

9. Applicant argues the following:

(1) "this application is proper under 35 U.S.C. 112 even without the incorporation of the listed co-pending applications" (pages 17-19, paper # 4).

(2) "the original application is sufficient as required by 35 U.S.C. 112. The complained citation to AFEN has been deleted" (page 19, paper # 4).

(3) Claims 1-7 recite subject matter not anticipated by Brannick et al." (pages 19-24, paper # 4).

***Response to Arguments***

10. Applicant's arguments have been fully considered.

10-1. In view of Applicant's unpersuasive argument (1), claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as detailed in section 7-2 above.

10-2. In view of Applicant's unpersuasive argument (2), claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as detailed in sections 6-1 and 7-1 above.



Art Unit: 2123

**10-3.** In view of Applicant's persuasive argument (3), the original claim rejections under 35 U.S.C. 102(e) for claims 1-3 have been withdrawn.

***Conclusion***

**11.** Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

**12.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Herng-der Day whose telephone number is (703) 305-5269. The examiner can normally be reached on 9:00 - 17:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin J Teska can be reached on (703) 305-9704. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/481,853

Page 9

Art Unit: 2123

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Herng-der Day  
December 13, 2003

A handwritten signature in black ink, appearing to read 'S. Broda'.

**SAMUEL BRODA, ESQ.  
PRIMARY EXAMINER**